

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

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Executive Director

Division of Oil, Gas and Mining

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Division Director

November 24, 2010

Rick Havenstrite Desert Hawk Gold Corporation 1290 Holcomb Ave. Reno, Nevada 89502

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Desert

Hawk Gold Corporation, Kiewit Project Mine, M/045/0078, Tooele County, Utah

Dear Mr. Havenstrite:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the Kiewit Mine, which was received September 8, 2010. The attached comments will need to be addressed before tentative approval may be granted.

When the Division receives your response to this review, it will conduct a "completeness review" to determine whether all items needed for a review of the entire plan are present. We anticipate completing this review quickly and will notify you of missing information. We will request that these missing items be submitted prior to commencing the full review. Among the items required are:

- 1. Results of a survey for cultural resources.
- 2. Appendix IV.
- 3. Soils data.
- 4. Vegetation survey.

Other information may also be needed for this completeness review.

The comments in this review are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text as you have done in the past. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

OIL, GAS & MINING

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The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Leslie Heppler, at 801-538-5257. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker

Minerals Program Manager

PBB:lah:vs Attachment: Review

Keith Moeller keith@cliftonmining.com BLM – Stephen\_Allen@blm.gov

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# SECOND REVIEW OF NOTICEOF INTENTION TO COMMENCE LARGE MINING OPERATIONS

#### Desert Hawk Gold Corporation Kiewit Project M/045/00078 November 23, 2010

#### **General Comments:**

Comm ent#	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	General	Submittal should be formatted to easily incorporate additional revisions and amendments.	lah	
2	General	Additional comments from the Division can be generated in the future based on submittals received in the future, every attempt should be made by the Operator to submit a complete NOI the first time around. A cover to cover review will need to be done on the final plan before it is stamped.	lah	
3	Intro para 2	DNI, formerly Dumont Nickel, has an active exploration permit, E/045/0140, at the Kiewit site. Please show how DNI's operations/reclamation will be accommodated. The Division suggests the exploration permit be transferred to Desert Hawk to avoid conflicts.	lah	
4	ii	The Division suggests adding the permit number to the title page.	lah	
5	Appendix IV	The cover letter for the September 1, 2010, submittal received by the Division September 8, 2010, has a comment in the reply to comment number 79 that the maps would be added in Appendix IV; no Appendix IV was received. Please submit the maps.	lah	

#### R647-4-104 - Operator's, Surface and Mineral Ownership

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
6	Figure 3A	Please label the exploration permit with permit number as this helps the Division keep track of disturbances and permits in the area.	lah	

#### R647-4-105 - Maps, Drawings & Photographs

**General Map Comments** 

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action	
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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Figure 2	Add TOTAL acreage figure to items in the legend (as shown 85 acres). The total acres need to be shown on the bond calculation (page 3 of the bond calculation notes 97 acres). Include the total disturbed acres on the bond summary sheet. On page 15 disturbed acres is noted as 97.5. Please modify the acreage figures so the document is consistent throughout.	lah	
8	All maps	Show slope of pit floor to indicate how storm water will be held in the pits as noted on page 6, this would be an arrow with the percent slope adjacent to the arrow	lah	
9	All figure	on the submittal received September 8, 2010, noted that the ground water permit "will" be in Appendix XV. Until the ground water permit is approved by DEQ and has been submitted to the Division, please modify all figures to show requirements such as double liners that will be required by DEQ.	lah	

105.1 - Topographic base map, boundaries, pre-act disturbance

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
10	SWP -2	A new SWP-2 was not included in the September 1 2010, submittal as was stated in the reply to comments.	lah	
11	Omission	Add the acreage of undocumented roads and document the roads.	lah	

105.2 - Surface facilities map

Comm ent#	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
12	Figure 5	The haul road is greater than one mile long and is listed as 75' wide. The table on this figure shows the disturbance from this road would be eight acres, but it would be at least nine acres. Please correct the table and use the actual length of road.	lah	
13	Figure 5	Show roads that will go to the growth medium stockpiles south of the haul road.	lah	
14	Figure 5	Add the temporary ore stockpile to the map and the legend, and include acreage.	lah	
15	Figure 5	Include growth medium stockpile acreage to the legend and chart.	lah	
16	Figure 5	The last line on the chart has 3 asterisks yet nothing is noted with 3 asterisks. In what area would there be no topsoil removal?	lah	
17	Figure 7	As shown, access to and from the Kiewit pit will be difficult below the 6160 elevation of the pit. A haul road should be shown that is coming from the 5760 level of the mine. The haul road must not go over the growth medium stockpile. Please modify all appropriate parts of the permit	lah	
18	Figure 5	The waste dump for the Yellow Hammer pit is not shown on Figure 5 as was stated in comment 23 of the September 1, 2010, response letter.	lah	
19	Figures 5, 8, and 9	Please show which pit at Clifton Shears will be the initial pit and note where the waste from the initial pit will be placed.	lah	
20	Omission	On Figure 5, the existing road used by the public to access the region will need to widened from the existing single pass graded road to accommodate the public and mine maintenance traffic on the same roadway. Include this change to the operation plan, impacts to public safety and to the bonding portion of the permit.	lah	

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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
21	Omission	On Figure 2, a waters source is listed from the area around Clifton Shears from a mine decline. Include in the bond the tanks, pumps and pipe that are needed to develop a water source in a decline.	lah	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
22	Figure 19	Sediment ditch is not shown on Figure 5, nor is it included on bond chart, nor the bond calculation sheet.	lah	
23	Figure 7	The haul road cannot be on top of growth medium stockpile.	pbb	
24	Omission	Label slope angles as either maximum or minimum as needed. For example, 1:1 slopes should be labeled as "1H:1V max". This is needed where the limits of the Division rules are applied.	lah	
25	Figure 19	Much of the area shown for the Yellow Hammer is a waste dump and not a mine area. Please change the appropriate area to waste dump, show the additional acreage when the dumps are pushed down, and include in the bond calculations.	lah	
26	Figure 19	Pit floor to be ripped is shown larger than area shown on Figure 11. Please change the area to on the appropriate figure, show the change in acres, and include in the bond calculations.	lah	
27	Figure 11	Please show the haul road that will be utilized from the Yellow Hammer pit.	lah	
28	Figure 12A	Please add the H:V to the 2:1 label.	lah	

## R647-4-106 - Operation Plan

**General Operation Comments** 

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
29	General	Appendices submitted on September 1, 2010, submittal are not labeled. Please tab or mark the appendix on submittals	lah	
30	Comment 33	A page after a Division of Water Rights page has analytical geochemical testing, but it is understood that these samples were taken from the surface and do not represent the 3-dimensional nature of an orebody. As per question comment 33, the Division requested more data on the sulphide/oxide contact based on the drilling that was done in the area.	lah	

106.2 - Type of operations conducted, mining method, processing etc.

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
31	Page 10 Para 1	The plan says bagged ANFO will be used, but the September 1, 2010, submittal noted in the reply to comment number 38, that an ANFO tower is under consideration. The plan needs to be consistent.	lah	

#### 106.3 - Estimated acreages disturbed, reclaimed, annually

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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
32	Page 15	The plan says all non-documented roads will be reclaimed. Please show the locations of all roads on all maps and include acreage of roads in the bond calculations.	lah	

106.4 - Nature of materials mined, waste and estimated tonnages

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
33	Page 16	Please document all previous disturbances on the maps. The DNI permit documented the roads in the exploration permit. The maps in the large mine permit need to include the large number of historic disturbances. It is important to show this information on a map, as certain roads need to be left open to provide access to other people's property.	lah	

106.5 - Existing soil types, location, amount

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
34		Comment from previous review: The lab analysis for the soils failed to report all soil parameters for the Division to fully analyze the suitability of the material for reclamation. Please provide data regarding cation exchange capacity, nitrogen (both total and nitrate nitrogen) and the percent organic matter. Without this data, the Division will assume that 10 tons/acre of biosolids or composted manure must be used as a soil amendment to improve revegetation success.  In addressing the above comment, the operator indicates that four soil samples were collected and sent to the soils lab at Utah State University. The lab analyses need to be submitted for review before this section can be considered complete and adequate. Please note that additional comments may result after review of the lab reports.	Lk Lk	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
35		The operator has indicated that a qualified biologist has been retained to collect the vegetation data required. Pending submittal and review of the vegetation report, additional comments may be generated. These comments may result in the need to revise the revegetation plan as well.	Lk	

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
36	Page 21	Because the geology map (Figure 4) is nearly illegible, please add to the text the names and description of the units shown on the map.	lah	
37	Page 22	that the plan says a construction permit and a ground water discharge permit have been applied for and will be included in the NOI as additional appendices. Both of these need to be in place prior to approval with documentation included in the plan.	lah	

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# R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
38	Page 18	Please provide the ground water protection plan as referenced on page 18.	TM	

109.4 - Slope stability, erosion control, air quality, safety

Comm ent#	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
39	Omission	The September 1, 2010, response letter says a place holder for required air quality permits is placed as Appendix XIV. Please submit this information as soon as it becomes available.	lah	
40	Omission	Comment 65 in the September 1, 2010, reply letter says a detail of the crusher and screening operations is on Figure 12B, but Figure 12B was not included with this submittal. Please submit Figure 12B and include necessary changes in the surety calculations.	lah	

109.5 - Actions to mitigate any impacts

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
41	Omission	Include other agencies' letters, approvals, and permits, including all that apply, such as DEQ, SHPO, or any county requirements.	lah	

#### R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
42				

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
43	Page 29	The plan says cuts on steep slopes will be recontoured, ripped, and graded to drain toward the cut side. No ripping should be necessary if a cut slope road is recontoured, and the re-contoured roads should not drain toward the cut.	lah	
44	Page 31 and Figure 19	The text says that upon closure, waste dumps will be graded to a 3H:1V max slope or less, but the legend in Figure 19 says waste dumps will be graded to 2H:1V slope or less. Please resolve this apparent discrepancy.	Pbb	

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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
45	Page 31	The plan says the leach pads will be rinsed for 200 days or until the pH of the effluent is between 6.5 and 7.5. —How was the figure of 200 days determined? Please provide a reference in the appendix. Please discuss how long the pumps will need to be run to draw down the fluids in the leach pad, and please include pumping and electrical costs in the bond. Commit in the text to follow the requirements of DEQ.	Lah	

110.3 - Description of facilities to be left (post mining use)

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
46		Please include a complete list of what would be buried on site. Burial on site is to require approval from DEQ. Until approval is received, include debris removal in the bond calculations.	Lah	

## R647-4-113 - Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
47	Reclamatio n cost estimate	Item 1. The comments list the haul distance as 100 miles, but the calculations use 150 miles; please clarify.	WH W	
48	Reclamatio n cost estimate	Item 1. Please list the hazardous disposal facility where material will be taken to in Wendover.	WH W	
49	Reclamatio n cost estimate	Item 2. Please discuss where equipment will be disposed of. Can the equipment be disposed of at a recycling center or does it need to be taken to a disposal facility?	WH W	
50	Reclamatio n cost estimate	Item 2. Please include the disposal costs for all materials that will not be disposed of at a recycling center. Often the cost of disposing of material is more than the actual demolition costs.	WH W	
51	Reclamatio n cost estimate	Item 2, 75 KW Generator. The reference number used for generator disposal is 02 41 16 13 5000, but this number in the 2010 Means Book is for demolition of buildings with no interior walls. While Means does not have generator removal costs, two other options would be to used the costs for equipment removal or to use the cost for generator installation minus the equipment costs.	WH W	
52	Reclamatio n cost estimate	Item 2. Demolition costs are based on a 25-mile haul to a disposal facility. The distance from the site to Wendover is more than 50 miles one way. Please use disposal costs that take into account the distance to a disposal facility. What is the time needed to haul the material on dirt roads?	WH W	
53	Reclamatio n cost estimate	Items 4, 5, and 9, Neutralize cyanide/rinse. Please provide supporting material as to the costs of disposing of cyanide contaminated items. What site would the material be transported to for disposal?	WH W	
54	Reclamatio n cost estimate	Heap and Process Pond. Please provide detailed calculations that show the equipment costs and manpower needed to rinse the pond and also the estimated time needed. Please substantiate the estimate of 200 days.	WH W	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
55	Reclamatio n cost estimate	Heap and Process Pond. Please provide details about the haul distances for backfill. The use of a 50-foot push distance for 19 acres may not be an accurate assumption for earthwork costs.	WH W	
56	Reclamatio n cost estimate	Earthwork costs. Many earthwork costs are based on Means item 31 23 16 14 4000 which is for a material push of 50 feet. Unless the material is stockpiled 50 feet from the site please include the cost to load and haul the material from the stockpile site to the placement site.	WH W	
57	Reclamatio n cost estimate	Earthwork costs. The material push costs are based on a 200-horsepower dozer, and the ripping costs are based on a 300-horsepower dozer. The contractor would most likely not use one dozer specifically for pushing and another dozer specially for ripping.	WH W	
58	Reclamatio n cost estimate	Forms. Please use the Division's form for bond calculations. The forms used were modified. Please include an electronic copy of the bond calculations as spreadsheets.	WH W	